

AUG 12 2004

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DATE: August 12, 2004

To: Examiner Alton N. Pryor  
USPTO Art Unit: 1616

Via Fax No.: 1-703-872-9306

From: R. Andrew Patty II

(Page 1 of 18)

Re: Reply to Office Action

Our ref. no.: S-829-A

Your ref. no.: 10/659,631

Attached please find the following listed documents transmitted via facsimile to 1-703-872-9306.

- 1) 3-page Reply to Office Action;
- 2) 11-page English Translation of JP 59164399;
- 3) 1-page Data Graph; and
- 4) 1-page (in duplicate) Petition For Extension of authorizing the amount of \$475.00 for payment of the three month extension fee.

Recipient: Please sign and date below and return this page to us by facsimile to acknowledge safe receipt of this transmission. If there are any difficulties please advise. Thank you.

Signed: \_\_\_\_\_ Dated: \_\_\_\_\_

AUG 12 2004

No. 1358 P. 2

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

INVENTOR(S): DONAL F. DAY

APPLN. NO.: 10/659,631

FILED: SEPTEMBER 10, 2003

TITLE: BIOCIDAL COMPOSITION AND  
RELATED METHODS

GROUP ART UNIT: 1616

EXAMINER:  
PRYOR, ALTON N.

Confirmation No.: 5592

Customer No.: 2071

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

**REPLY TO OFFICE ACTION**

Responsive to the non-final office action mailed in the application on February 12, 2004 (the "Office Action"), Applicant respectfully requests reconsideration of this application in view of the following remarks. Claims 1-19 remain in the case. The requisite petition for a 3-month extension of time for filing this response, plus the authorization for payment of the requisite fee, is attached.

On or about April 19, 2004, a Supplemental Information Disclosure Statement was filed in this case. Acknowledgment of the consideration of the references cited therein is respectfully requested in the next correspondence from the Examiner.

Claims 1-8 and 19 stand rejected under 35 U.S.C. 102(b) as allegedly anticipated by JP 59164399 (hereinafter "JP '399"). This rejection is respectfully traversed. A full English translation of JP '399 is enclosed for the Examiner's convenience. Claim 1 specifies that "the biocidal composition is formed by adding the peroxide ingredient to the hypochlorite ingredient . . ." (Emphasis supplied.) The present Specification makes note of the importance of this particular sequence of addition, when it states in part, at paragraph 16:

The biocidal compositions of this invention are formed by adding the peroxide to the hypochlorite. It has been found that when combining the components in any other sequence (e.g., adding the hypochlorite to the peroxide), no stable composition is formed.

Data to this effect is also presented in the Specification at least at paragraph 39 and Table 6. In fact, the presented data appears to show unexpectedly beneficial results from the use of this particular sequence of addition. There is simply no recognition of the significance of this

sequence of addition in JP '399. Therefore, on this ground alone, the reference fails to establish a *prima facie* case of anticipation under section 102(b).

Furthermore, Claim 1 specifies that "the weight ratio of the hypochlorite to the peroxide is no less than about 10:1." (Emphasis supplied.) The importance of this ratio was clearly spelled out in at least the above cited paragraph 16 of the current Specification, where it is stated as follows:

The amount of peroxide which is added to the hypochlorite also is important. The amount of peroxide added to the hypochlorite is preferably sufficient to provide a hypochlorite to peroxide weight ratio of no less than about 10:1, with ratios as high as 50:1, 100:1 or higher being possible but less preferred. Most preferably, the weight ratio of hypochlorite to peroxide is about 10:1. Compositions so formed are particularly stable and biocidally effective.

JP '399 fails to teach or suggest any significance to the weight ratio of hypochlorite to any particular peroxide. Even if one assumes, *arguendo*, that JP '399 disclosed an encompassing or overlapping range of weight ratios, the reference does not necessarily support a finding of anticipation, since a prior art reference which merely discloses a broad range of possible ratios and not the specifically claimed ratio or range, does not necessarily anticipate the claimed values which fall within the prior art disclosure. See, e.g., *In re Wertheim*, 541 F.2d 257, 264-65, 191 U.S.P.Q. 90, 98 (CCPA 1976) and MPEP § 2131.03. In this case, the Applicant has shown a surprisingly beneficial result (significant stability combined with highly effective biocidal activity) when the sequence of addition specified and a weight ratio in the range specified are employed. Accordingly, JP'399 does not and cannot establish a *prima facie* case of anticipation under 35 U.S.C. 102(b), and this rejection should be reconsidered and withdrawn.

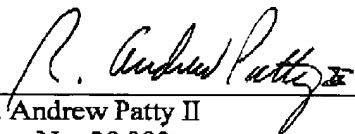
Furthermore, it should be pointed out that Applicant has provided to the undersigned a graph of data showing the hypochlorite to peroxide weight ratio effect upon microbial kill rates. As may be seen from the accompanying data graph, a surprisingly high level of biocidal effectiveness was achieved at the weight ratio of 10:1 (no surviving spores), while levels higher than 10:1 were still better than the kill rates below 10:1. The significance of the weight ratio specified could not have been predicted from the cited prior art and this graph clearly evidences a surprisingly beneficial result.

Claims 9-18 stand rejected under 35 U.S.C. 103(a) as allegedly unpatentable over JP '399 as applied in the first rejection. This rejection is respectfully traversed. For the reasons given above regarding the section 102(b) rejection, the sole cited reference, JP '399, fails to disclose, teach or suggest the weight ratio specified in the present claims, much less any particular sequence of addition. For at least these reasons, JP '399 does not and cannot establish a *prima facie* case of obviousness under 35 U.S.C. 103(a). Moreover, even if one assumed *arguendo* that

some sort of *prima facie* case of obviousness could be established by JP '399, the present Specification has clearly presented evidence of surprisingly beneficial results when employing the stated sequence of addition (see, e.g., Table 6), and this evidence is sufficient to rebut any such *prima facie* case of obviousness under section 103(a). Moreover, the accompanying graph illustrates the surprisingly beneficial results achieved when employing a hypochlorite to peroxide weight ratio in the claimed range. The fact that a person of ordinary skill in the relevant technical field might have the *capability* to make the necessary modifications alone cannot supply the necessary *suggestion* to modify the prior art to arrive at a claimed invention. See, e.g., *In re Rouffet*, 149 F.2d 1350, 47 USPQ2d 1453, 1458 (Fed. Cir. 1998). "The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification." *In re Fritch*, 972 F.2d 1260, 23 USPQ2d 1780 (Fed. Cir. 1992). Since the cited prior does not establish or suggest any motivation to make the modification necessary to arrive at the claimed invention, this rejection also should be reconsidered and withdrawn.

In view of all of the foregoing, favorable action upon all of the present claims is solicited. If further information or response is required, it is requested that the Examiner contact the undersigned directly by phone or email to expedite the consideration of this case.

Respectfully Submitted,

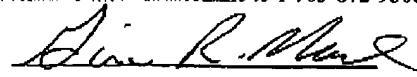
  
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I hereby certify that on the date indicated below this document, along with any other document referenced herein as attached or enclosed, is being transmitted to the United States Patent and Trademark Office via facsimile to 1-703-872-9306.

Aug. 12, 2004  
Date

  
Gina R. Merritt